



DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

[Docket No.: 230818-0199]

Request for Information on Implementation of the United States Government National Standards Strategy for Critical and Emerging Technology (USG NSSCET)

AGENCY: National Institute of Standards and Technology (NIST), Commerce.

ACTION: Notice; request for information.

SUMMARY: NIST is seeking information on behalf of the U.S. Department of Commerce and the U.S. Government to support the development of an implementation plan for the United States Government National Standards Strategy for Critical and Emerging Technology (USG NSSCET). The USG NSSCET is intended to support and complement existing private sector-led activities and plans, including the American National Standards Institute (ANSI) United States Standards Strategy (USSS), with a focus on critical and emerging technology(ies) (CET). The USG NSSCET reinforces the U.S. Government's support of a private sector-led, open, consensus-based international standards system, corresponding to the World Trade Organization (WTO) Technical Barriers to Trade (TBT) Committee decision that articulates and elaborates on principles that are fundamental to the development of an international standards: transparency; openness; impartiality and consensus; effectiveness and relevance; and coherence.

To inform the USG NSSCET implementation, including how to best partner with relevant stakeholders, NIST is requesting information that will support the identification and prioritization of key activities that will optimize the USG NSSCET implementation and further enhance the U.S. Government's ability to support a private sector-led, open, consensus-based international standards system, to which the U.S. Government is an active stakeholder and participant.

DATES: Comments must be received by 5:00 PM Eastern Time on [PLEASE INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

- Electronic submission: Submit electronic public comments via the Federal e-Rulemaking Portal.
 1. Go to www.regulations.gov and enter NIST-2023-0005 in the search field.
 2. Click the “Comment Now!” icon and complete the required fields.
 3. Enter or attach your comments.

Comments containing references, studies, research, and other empirical data that are not widely published should include copies of the referenced materials. All submissions, including attachments and other supporting materials, will become part of the public record and subject to public disclosure.

All comments responding to this document will be a matter of public record. Relevant comments will generally be available on the Federal eRulemaking Portal at www.regulations.gov. After the comment period closes, relevant comments will generally be available on www.standards.gov.

NIST will not accept comments accompanied by a request that part or all of the material be treated confidentially because of its business proprietary nature or for any other reason.

Therefore, do not submit confidential business information or otherwise sensitive, protected, or personal information, such as account numbers, Social Security numbers, or names of other individuals.

For Public Meetings/Webcast: NIST may hold a series of “Listening Sessions” or “Stakeholder Events” in support of the USG NSSCET implementation. Information on these and any other NIST-sponsored events in connection with the USG NSSCET implementation will be announced at www.standards.gov.

FOR FURTHER INFORMATION CONTACT: For questions about this notice please contact: Jennifer L. Marshall, Deputy Director, Standards Coordination Office (SCO), NIST via email at sco@nist.gov or by phone at (301) 975-3396. Please direct all media inquiries to Public Affairs Office (PAO), NIST via email at inquires@nist.gov or by phone at (301) 975-2762.

SUPPLEMENTARY INFORMATION: NIST is seeking information on behalf of the U.S.

Department of Commerce and the U.S. Government to support the development of an implementation plan for the United States Government National Standards Strategy for Critical and Emerging Technology (USG NSSCET). The USG NSSCET is intended to support and complement existing private sector-led activities and plans, including the American National Standards Institute (ANSI) United States Standards Strategy (USSS), with a focus on critical and emerging technology(ies) (CET). The U.S. standards development system is unique because it is built upon a wide variety of processes that are open, voluntary, decentralized, and led by the private sector. These processes feature openness to participation by materially interested stakeholders with consensus-based decision making. Finalized standards are primarily published by private sector standards organizations, not the U.S. Government. The U.S. Government supports standards development activities in accordance with the World Trade Organization (WTO) Technical Barriers to Trade Committee decision that articulates principles including transparency, openness, impartiality and consensus, effectiveness, relevance, and coherence. The USG NSSCET reinforces the U.S. Government's support of a private sector-led, open, consensus-based international standards system, to which the U.S. Government is an active stakeholder and participant. To inform the USG NSSCET implementation, including how to best partner with relevant stakeholders, NIST is requesting information that will support the identification and prioritization of key activities that will optimize the USG NSSCET implementation and further enhance the U.S. Government's ability to support a private sector-led, open, consensus-based international standards system. In addition to other agencies and Departments, bureaus across the U.S. Department of Commerce are involved in the USG NSSCET. They include the International Trade Administration (ITA), the Bureau of Industry and Security (BIS), the U.S. Patent and Trademark Office (USPTO), and the National Telecommunications and Information Administration (NTIA).

CET covered under the USG NSSCET include, but are not limited to:

- Communication and Networking Technologies
- Semiconductors and Microelectronics, including Computing, Memory, and Storage Technologies
- Artificial Intelligence and Machine Learning
- Biotechnologies
- Positioning, Navigation, and Timing Services
- Digital Identity Infrastructure and Distributed Ledger Technologies
- Clean Energy Generation and Storage
- Quantum Information Technologies

There are also specific applications of CET that departments and agencies have determined will impact our global economy and national security. These include, but are not limited to:

- Automated and Connected Infrastructure
- Biobanking
- Automated, Connected, and Electrified Transportation
- Critical Minerals Supply Chains
- Cybersecurity and Privacy
- Carbon Capture, Removal, Utilization, and Storage

A full list of CETs identified by the National Science and Technology Council (NSTC) can be found <https://www.whitehouse.gov/wp-content/uploads/2022/02/02-2022-Critical-and-Emerging-Technologies-List-Update.pdf>.

The national interest in CET and associated areas of standardization demands a new and urgent level of coordination and effort. National policy priorities, as expressed in legislation and other statements of policy, will require new ways for public sector and private sector (i.e., industry, including start-ups and small- and medium-sized enterprises (SMEs), academic community, and civil society organizations) stakeholders to cooperate in order to advance U.S. economic competitiveness and national security.

NIST is seeking comments on the following questions and encourages responses from the public, including key stakeholders from the private sector (i.e., industry, including start-ups and SMEs, academic community, and civil society organizations), standards developing organizations (SDOs), and international partners. The questions reflect the four Objectives in the USG NSSCET. However, the questions are not intended to limit the topics that may be addressed. Responses may include any topic believed to have implications for the implementation of the USG NSSCET.

When responding, commenters may address the practices of their organization(s) or a group of organizations with which they are familiar. Commenters may also provide information about the type, size, and location of the organization(s). Provision of such information is optional and will not affect NIST's consideration.

General Questions

1. Are there potential benefits, opportunities, or risks associated with increased U.S. participation in standards development activities for CET?
2. What are the potential risks or implications of decreased U.S. participation in standards development activities for CET?
3. What are the most important challenges faced by the private sector (i.e., industry, including start-ups and small- and medium-sized enterprises (SMEs), academic community, and civil society organizations) when participating in standards development activities for CET, and how can these challenges be addressed?

USG NSSCET Objective 1: Investment

4. How can the U.S. Government establish policies that promote standards development for CET as a critical component of U.S. innovation culture?
5. How can the U.S. Government utilize Federal spending on research and development to drive technical contributions for CET standards development activities?

6. How can the U.S. Government facilitate the adoption of standards-based CET by industry stakeholders, including start-ups and small- and medium-sized enterprises (SMEs)?
7. How can the U.S. Government better support publicly funded and private research in standards development activities for CET?

USG NSSCET Objective 2: Participation

8. How can the U.S. Government increase the amount and consistency of private sector (i.e., industry, including start-ups and small- and medium-sized enterprises (SMEs), academic community, and civil society organizations) engagement in standards development activities for CET?
9. How can the U.S. Government improve communications among the public and private sector (i.e., industry, including start-ups and small- and medium-sized enterprises (SMEs), academic community, and civil society organizations) to address potential participation gaps in standards development activities for CET?
10. How can the U.S. Government foster early collaboration with private sector (i.e., industry, including start-ups and small- and medium-sized enterprises (SMEs), academic community, and civil society organizations) stakeholders to identify standards for CET that would encourage market and regulatory acceptance as needed? At what stage is early collaboration most effective?
11. What roles do the academic community and civil society organizations play in standards development activities for CET, and how can they increase their contributions to a private sector-led system?
12. How can the U.S. Government better support state, local, and tribal governments in participating in standards development activities for CET?

USG NSSCET Objective 3: Workforce

13. How can the U.S. Government leverage existing or develop new digital tools and

resources that facilitate access to standards development processes, and increase engagement by private sector (i.e., industry, including start-ups and small- and medium-sized enterprises (SMEs), academic community, and civil society organizations) CET stakeholders?

14. How can the U.S. Government incentivize the modification of existing curricula and/or the creation of new curricula, to include faculty professional development, by educational institutions for pedagogy to support standards development activities for CET?

15. What standards development activities for CET can U.S. government and private sector (i.e., industry, including start-ups and small- and medium-sized enterprises (SMEs), academic community, and civil society organizations) stakeholders promote or develop to encourage increased participation by students and trainees?

16. How can the U.S. Government support both private sector and public sector recognition for standards development expertise and how can this recognition be utilized to increase standards development activities for CET?

USG NSSCET Objective 4: Integrity and Inclusivity

17. How can the U.S. Government work with private sector (i.e., industry, including start-ups and small- and medium-sized enterprises (SMEs), academic community, and civil society organizations) stakeholders to more effectively coordinate with international partners and reinforce private sector-led standards development activities for CET?

18. How should the U.S. Government share information on standards development activities for CET with like-minded partners and allies?

19. What standards information and tools can the U.S. government develop and promote to ensure U.S. exporters can compete in global markets for CET?

20. How can the U.S. Government further advance the design and implementation of technical assistance programs for CET that enable broad and inclusive participation by developing countries in international SDOs?

21. How can the U.S. Government work with international partners to ensure that standards for CET are developed in a way that supports U.S. interests, including a commitment to free and fair market competition in which the best technologies come to market?
22. How can the U.S. Government make the United States a more desirable location to hold international standards meetings, events, and activities for CET?

Alicia Chambers,

NIST Executive Secretariat.

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